

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented): A process for the production of methyl ethyl ketone cyanohydrin of the formula:

said process comprising:

reacting hydrocyanic acid and methyl ethyl ketone in the presence of diethylamine as a catalyst.

2. (Previously Presented): A process according to claim 1, wherein the diethylamine is introduced at a rate of 1×10^{-3} to 5×10^{-3} mol per mol of hydrocyanic acid or methyl ethyl ketone, whichever is in the lowest molar concentration.

3. (Currently Amended): A process according to claim 2, wherein the diethylamine is introduced at a rate of 1.5×10^{-3} to 3×10^{-3} mol per mol of hydrocyanic acid or methyl ethyl ketone, whichever is in the lowest molar concentration.

4. (Previously Presented): A process according to claim 1, wherein the reaction is conducted at atmospheric pressure.

5. (Previously Presented): A process according to claim 1, wherein the reaction is conducted at a temperature of -20 to 40°C.

6. (Previously Presented): A process according to claim 5, wherein the reaction is conducted at a temperature of -10 to 30°C.

7. (Previously Presented): A process according to claim 1, wherein the reaction is conducted at a pH from 7 to 9.

8. (Previously Presented): A process according to claim 7, wherein the reaction is conducted at a pH of 7.5 to 8.5.

9. (Previously Presented): A process according to claim 1, wherein the reaction is conducted with an HCN/methyl ethyl ketone molar ratio of between 0.90 and 1.10.

10. (Previously Presented): A process according to claim 1, wherein the reaction is conducted for a period of 1 to 4 hours.

11. (Previously Presented): A process according to claim 9, wherein the reaction is conducted with an HCN/methyl ethyl ketone molar ratio of between 0.95 and 1.05.

12. (Previously Presented): A process according to claim 10, wherein the reaction is conducted for a period of 1 to 2 hours.

13. (Previously Presented): A process according to claim 2, wherein the reaction is conducted at a temperature of -20 to 40°C, a pH from 7 to 9, and at an HCN/methyl ethyl ketone molar ratio of between 0.90 and 1.10.

14. (Previously Presented): A process according to claim 3, wherein the reaction is conducted at a temperature of -10 to 30°C, a pH from 7.5 to 8.5, and at an HCN/methyl ethyl ketone molar ratio of between 0.95 and 1.05.